

A SEMICONDUCTOR DEVICE WITH SHIELDING

ABSTRACT OF THE DISCLOSURE

A semiconductor device includes grooves formed in a semiconductor
5 substrate to provide an inner portion movable in x and y directions. Drive
electrodes vibrate the inner portion in the x direction, and detection electrodes
detect movement in the y direction generated when an angular velocity is
applied thereto. Monitor electrodes generate monitor signals for monitoring
movement of the inner portion in the x direction. Shield wires are provided
10 between the drive and detection electrodes and the monitor electrodes to
suppress capacitive coupling. Dummy electrodes adjacent to the output
electrodes and capacitively coupled to the drive electrodes generate a dummy
signal. Dummy signal wires are respectively connected to the dummy
electrodes and to the circuit substrate. The dummy signal includes an
15 induced component of a periodical signal and is supplied to the circuit
substrate to cancel another induced component of the periodical signal in the
drive and monitor signals.